

ABSTRACT OF THE DISCLOSURE

A multi-layer capacitor is highly downsized and increased in capacity. A method for manufacturing the multi-layer capacitor includes, in the same vacuum chamber, forming a dielectric layer, treating a surface of the dielectric layer, forming a pattern in a metal electrode, forming the metal electrode on the dielectric layer, and treating a surface of the metal electrode. In this method, etching of the dielectric layer flattens a recessed part generated by an electrical insulation part.